Call Center Metrics: A Measure of Customer Satisfaction

Dayle DeLong
South Carolina Budget & Control Board
Employee Insurance Program

January 6, 2011
Background

As part of the strategic planning process, the Employee Insurance Program (EIP) conducted a customer satisfaction survey in June 2010.

Understanding what drives customer satisfaction is a critical element of successful call center management. According to the Government Contact Center Satisfaction Index 2010, there are four factors that affect satisfaction with a government contact center experience:

1. The customer service representative (CSR) who handles the call.
2. The capability of the Interactive Voice Response (IVR) system to either handle the issue completely or route the customer to an agent.
3. The process the customer goes through to handle his or her inquiry.
4. The other channels citizens use to interact with the government agencies, such as websites or social media.

EIP's customer satisfaction survey focused on the CSR and how the customer's inquiry is handled. Every customer who contacted EIP within the past 12 months was asked to rate his satisfaction with the wait time, the courtesy and attitude of EIP staff, and the accuracy of the information provided.

Overall, customers who contacted EIP by telephone were satisfied 90.1% of the time. Courtesy and attitude of the staff rated highest in customer satisfaction at 95.7%. Callers were satisfied with the accuracy of the information they received 89.1% of the time. Satisfaction with wait time rated lowest at 83.6%, and 39% of those satisfied with the wait time were only "Somewhat Satisfied".
Although the survey asked about the customer’s satisfaction with call wait time, at the
time the survey was taken, EIP did not report the caller wait time on its Performance
Measures Scorecard. Only two standards related to the call center were established and
reported on the scorecard: Call Abandonment Rate and CSR Availability. The Call
Abandonment Rate is the percentage of calls received that were abandoned before being
answered by a Customer Service Representative (CSR). The standard that no more than
10% of calls be abandoned was established. CSR availability relates to the percentage of
time a CSR is available to receive calls from customers. There are several ways to
establish availability. Each CSR is required to log into the phones when he arrives at
work. Throughout the day, the CSR can “aux out” of the phones for one of nine reasons.
These include:

1. Breaks/Personal Time
2. Lunch
3. Training
4. Meetings
5. Special Projects
6. Assistance
7. Contact Notes
8. Research
9. Processing

For the purposes of this exercise, I have deducted the time the CSR is away from his
desk (breaks, lunch and training) from the total amount of time the CSR is logged into the
phone system to establish the percentage of time he is available to take calls. Any other
time the CSR is in an “aux out” mode is time he could otherwise have been available to
take a call. The acceptable standard availability for a CSR was defined as being available
at least 75% of the time. This measure was established several years ago by estimating the
amount of time a CSR may be engaged in other activities such as processing transactions, sending or receiving faxes, asking for assistance from a supervisor, etc.

**Problem Statement**

As we know, human nature is to focus on those things being measured and reported. It is important that the data captured is relevant, and measuring it not only meets the program goals but also leads to increased customer satisfaction. When the 75% CSR availability standard was established, the CSR’s primary responsibility was to answer incoming calls and forward complex issues to a supervisor for resolution. Since that time, the CSR’s role has expanded. He is no longer a call taker, but rather he is a problem solver. He is responsible for taking the issues he encounters and following through until the issue is resolved. This shift in responsibilities requires the CSR to spend more time out of the phones researching issues and processing transactions. Although the role of the CSR has changed, we have not revisited the CSR availability standard to determine its relevance to customer satisfaction.

According to the Government Contact Center Satisfaction Index 2010, “managing a contact center effectively involves the pursuit of at least two key objectives that remain in constant tension with one another: maintaining high customer satisfaction and operating the center within budget constraints. Virtually any manager can achieve excellent support if given unending resources. The challenge is to learn to focus and improve aspects of the center that have the greatest impact on the customer experience.” This report also found that the biggest factor in customer satisfaction was the length of the wait time. When the 75% standard CSR Availability was established, the theory was that the more the CSR was available, the more calls he can answer and the less time a customer has to wait to
speak to a CSR. My hypothesis is there are three flaws to this theory. First, CSR availability is only one factor affecting call wait time; and greater CSR availability does not always mean a lower wait time for the customer.

Second, according to the International Customer Management Institute, the single biggest driver of customer satisfaction is First Contact Resolution (FCR). If the CSR focuses on maintaining a high level of availability, he may feel restricted in his ability to research, resolve and follow up with complex customer issues; therefore the customer will not be satisfied, and a repeat call will be necessary for the customer to resolve his issue.

Finally, mandating high CSR availability will lead to agent burnout, job dissatisfaction and eventually job turnover.

**Data Collection**

Data was collected and reviewed for the period beginning March 1, 2010, and ending December 31, 2010. To determine CSR availability, data was gathered from several reports daily. The “Agent Aux Interval” report details the amount of time the CSR was logged into the system, as well as when he was in an “aux out” mode. As processing is a primary reason a CSR would “aux out”, I also pulled a report that showed the number of transactions processed by the CSR each day.

In calculating CSR availability and how it relates to wait time, I compiled data on call volume, average call wait time, average abandon time and number of calls abandoned from the Split/Skills Summary interval reports. Finally, I pulled data from the Split/Skills Daily Report to determine the level of CSR staffing, as well as supplemental staffing from other areas within EIP. In all, I compiled data from 18 reports and queried two electronic sources daily.
**Data Analysis**

While analyzing the data, I used the 10% standard abandonment rate to determine an appropriate call wait time. As you can see in Appendix A, the abandonment rate exceeds 5% at 50 seconds, approaches 9% when the call wait time reaches 1 minute 40 seconds and hovers just below 10% once the call wait time reaches 1 minute 50 seconds. Ideally, we would like to answer calls within 50 seconds to minimize the number of abandoned calls; however, it is not practical to establish this standard given our limited resources. Instead, I reviewed the amount of time a caller was willing to wait before abandoning the call. The mean wait time before a caller would abandon was 1 minute 43 seconds which falls below our 10% standard abandonment rate. I used this as a benchmark in establishing a higher level of satisfaction if the call was answered in less than 1 minute 43 seconds.

Of the calls received March 1 – December 31, 2010, the mean wait time was 1 minute, 7 seconds while the mean CSR availability was 77%. At first glance, it appears as though CSR Availability and Wait Time are directly related. Upon closer examination, it is evident that CSR Availability is not the only factor that affects wait time.

If you review the daily totals based on CSR Availability, 7% of the days had an acceptable CSR Availability with excessive hold times.
If you review the data based on wait time, 23% of the days were within the acceptable range (less than 1 minute, 43 seconds) when the CSR Availability was below standard (less than 75%).

We cannot rely on CSR Availability alone. As illustrated in Appendix B, other factors affect the call wait time including: number of staff available and call volume. For
example, on July 14, 2010 our staffing level was 30% below average (two people were on annual leave and two others called in sick). Though we met the CSR standard availability of 75%, wait time was more than 2 minutes 20 seconds and our abandonment rate was more than 11%. As illustrated in Appendixes C and D, staffing levels also have an impact on customer wait time and abandonment rates and tend to fluctuate based on call volume.

On October 29, 2010, we exceeded our average staffing level by almost 50%, but we received more than 2.3 times our normal call volume. CSR availability was at 89% while the call wait time was 2 minutes 42 seconds with more than a 14% abandonment rate. This was the last working day before the end of Annual Enrollment, and contingency plans were in place to handle the anticipated increase in call volume. In this instance, additional resources were recruited from other departments within EIP to assist. Even with the additional staff, volume of calls exceeded capacity and the call center did not have enough staff to handle the volume of calls. While recruiting from other department within EIP is a viable solution for short-term seasonal increases, it is only effective when an increase in call demand is anticipated in advance. Utilizing resources from other work units must be planned well in advance to ensure operations within the other work units are not compromised.

**Implementation**

On July 1, 2010, we changed our Performance Measures. We kept the same measure for Call Abandonment Rate, but the CSR Availability metric on the Performance Measures Scorecard was replaced with Mean Wait Time. Until enough data could be gathered, the maximum wait time was established to be less than 2 minutes 15 seconds. This number was recommended to us by our telecommunications contractor. Once the
data was collected and evaluated, we planned on lowering the standard to a more appropriate time. Since November, we have lost several CSRs and currently have three vacancies that cannot be filled. Once we are fully staffed again, we will re-examine the data to determine a more appropriate wait time standard.

While we continue to gather data to determine CSR availability, we now only focus on CSR Availability during peak times (October and January) when the call volume exceeds capacity and it is necessary to route complex issues to a designated team for resolution. Otherwise, CSR Availability is only reviewed to identify training and process improvement opportunities.

Removing the CSR Availability metric from the EIP Performance Measures Scorecard has benefited the organization in several ways:

1. It provides management with a metric that is easy to define. This metric provides immediate feedback in determining when additional resources are needed to accommodate an increase in customer demand.

2. It empowers CSRs to take the necessary steps to resolve customer issues during the first point of contact without being penalized for falling below the CSR Availability standard. By removing an artificially high CSR availability rate, the CSR is able to “aux out” of the phones to research complex problems and process outstanding issues. This ensures customer issues are fully resolved during the first contact.

3. It ensures resources are properly allocated. By adjusting staffing levels when the call volume is lower, CSRs are able to assist in areas where customer demand is
greater. For example, after the October enrollment period, customer demand shifts from answering incoming phone calls to processing enrollment paperwork.

During the October enrollment period, we implemented several changes aimed at decreasing customer wait time and improving customer satisfaction. In the fall, when call volume often doubles (or sometimes triples), it is impossible to maintain an acceptable customer wait time using only the CSRs on staff. This year, we implemented the "Working Bigger" plan, which provided additional resources to assist with incoming calls during the peak times and minimized customer wait time. The additional resources were provided by other departments within EIP, including some of our processors, customer service team members, field services representatives and communications staff. The result was a quicker customer response time and a sense of support for the CSR staff, as well as for the processing team.

Another change we implemented in October was the option for the customer to leave a message or request a call back from a CSR. According to Stella Service, "If we can empower the customer to choose his interaction time and style, we've arranged for a better customer experience, no matter the hold time. So while it's great to consider tools to reduce hold times, it's wiser to give the caller alternatives he can use right now, at point of use. Put him in charge of his own destiny and away from the hold music." The option to leave a message or request a call back is provided to the caller when the wait time exceeded 2 minutes, 15 seconds. If the caller does not choose the option to leave a message when it is first offered, he continues to hold. Every two minutes thereafter, he is given the option to leave a message or request a call back. All calls are returned before the close of business each day. This system worked very well during the enrollment
period. The feedback we received from customers was positive, and most liked the ability to leave a message without holding on the line for a CSR. We will continue to utilize the messaging system throughout the year.

Moving forward, we must remember: no one measurement can gauge customer satisfaction, and customer needs and expectations continue to change. With a limited staff, EIP must continue to work “bigger” to accommodate the needs of its customers by focusing on the things that truly matter: ease and speed of service, accurate information and first contact resolution.

We will continue to capture and analyze the data to identify opportunities to improve the overall customer experience. We hope to automate the data collection process which will allow us to run multiple queries and assist with scheduling resources to meet customer demand. We also would like to invest in a new contact log system that will not only allow us to log customer interactions, but will also provide an electronic mechanism to route, track and monitor resolution of customer issues.

In closing, there are several factors to consider when gauging customer satisfaction. Customer wait time is a significant metric. First contact resolution (FCR) is another important factor in customer satisfaction. After all, it’s great to have the call answered quickly, but if the issue is not resolved, the customer will not be satisfied.

---

1 Government Contact Center Satisfaction Index 2010 – Measuring Government Agency Contact Center Performance by David Ham, Program Director CFI Group
2 Government Contact Center Satisfaction Index 2010 – Measuring Government Agency Contact Center Performance by David Ham, Program Director CFI Group
3 International Customer Management Institute – The Essential Call Center KPIs – April, 2007
4 Spoken Communications – Why Your Customers Hate You: The Hold Time Curse – April 30, 2010
Appendix A

Abandonment Rate
Based on Call Wait Time
## March 1 - December 31, 2010
CSR Availability Standard Met -- Excessive Wait Time

<table>
<thead>
<tr>
<th>Date</th>
<th>% CSR Available</th>
<th>Total Calls</th>
<th>Calls/Day</th>
<th>Mean Wait Time</th>
<th>Mean Max Hold Time</th>
<th>Mean Abandon Time</th>
<th>% Abandon</th>
<th>CSR Available (HH:MM:SS)</th>
<th>Other Staff Assist (HH:MM:SS)</th>
<th>Total Staff Available (HH:MM:SS)</th>
<th>Compared to Average Staffing/Day</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/1/2010</td>
<td>75%</td>
<td>676</td>
<td>146.96%</td>
<td>0:03:01</td>
<td>0:32:21</td>
<td>0:03:15</td>
<td>12.57%</td>
<td>59:57:30</td>
<td>2:41:00</td>
<td>62:38:30</td>
<td>101%</td>
</tr>
<tr>
<td>4/8/2010</td>
<td>79%</td>
<td>369</td>
<td>80.22%</td>
<td>0:02:02</td>
<td>0:19:58</td>
<td>0:03:53</td>
<td>13.28%</td>
<td>41:44:22</td>
<td>2:49:08</td>
<td>44:33:30</td>
<td>72%</td>
</tr>
<tr>
<td>4/29/2010</td>
<td>81%</td>
<td>614</td>
<td>133.48%</td>
<td>0:01:52</td>
<td>0:17:38</td>
<td>0:01:49</td>
<td>9.28%</td>
<td>51:32:08</td>
<td>5:01:13</td>
<td>56:33:21</td>
<td>91%</td>
</tr>
<tr>
<td>5/6/2010</td>
<td>78%</td>
<td>420</td>
<td>91.30%</td>
<td>0:02:11</td>
<td>0:16:10</td>
<td>0:02:38</td>
<td>10.00%</td>
<td>47:18:11</td>
<td>3:24:20</td>
<td>50:42:31</td>
<td>81%</td>
</tr>
<tr>
<td>6/1/2010</td>
<td>75%</td>
<td>632</td>
<td>137.39%</td>
<td>0:02:58</td>
<td>0:18:19</td>
<td>0:02:41</td>
<td>15.66%</td>
<td>60:29:54</td>
<td>1:29:48</td>
<td>61:59:42</td>
<td>100%</td>
</tr>
<tr>
<td>6/28/2010</td>
<td>79%</td>
<td>465</td>
<td>101.09%</td>
<td>0:01:49</td>
<td>0:30:16</td>
<td>0:02:31</td>
<td>8.82%</td>
<td>54:43:05</td>
<td>3:26:21</td>
<td>58:09:26</td>
<td>93%</td>
</tr>
<tr>
<td>6/30/2010</td>
<td>80%</td>
<td>540</td>
<td>117.39%</td>
<td>0:01:44</td>
<td>0:22:21</td>
<td>0:01:55</td>
<td>8.89%</td>
<td>62:17:23</td>
<td>0:00:00</td>
<td>62:17:23</td>
<td>100%</td>
</tr>
<tr>
<td>7/14/2010</td>
<td>75%</td>
<td>407</td>
<td>88.48%</td>
<td>0:02:20</td>
<td>0:30:07</td>
<td>0:03:24</td>
<td>11.06%</td>
<td>36:35:12</td>
<td>7:03:51</td>
<td>43:39:03</td>
<td>70%</td>
</tr>
<tr>
<td>7/27/2010</td>
<td>75%</td>
<td>451</td>
<td>98.04%</td>
<td>0:02:10</td>
<td>0:18:09</td>
<td>0:03:29</td>
<td>11.97%</td>
<td>46:10:00</td>
<td>6:54:30</td>
<td>53:04:30</td>
<td>85%</td>
</tr>
<tr>
<td>9/17/2010</td>
<td>79%</td>
<td>745</td>
<td>161.96%</td>
<td>0:03:21</td>
<td>0:29:08</td>
<td>0:02:23</td>
<td>17.45%</td>
<td>65:40:49</td>
<td>4:58:06</td>
<td>70:38:56</td>
<td>113%</td>
</tr>
<tr>
<td>10/28/2010</td>
<td>81%</td>
<td>996</td>
<td>216.52%</td>
<td>0:01:56</td>
<td>0:12:41</td>
<td>0:01:30</td>
<td>9.76%</td>
<td>76:19:06</td>
<td>12:47:09</td>
<td>89:06:15</td>
<td>143%</td>
</tr>
<tr>
<td>10/29/2010</td>
<td>89%</td>
<td>1060</td>
<td>230.43%</td>
<td>0:02:42</td>
<td>0:21:23</td>
<td>0:02:18</td>
<td>14.83%</td>
<td>75:02:52</td>
<td>18:03:14</td>
<td>93:06:06</td>
<td>149%</td>
</tr>
<tr>
<td>11/12/2010</td>
<td>77%</td>
<td>459</td>
<td>99.78%</td>
<td>0:02:05</td>
<td>0:13:14</td>
<td>0:02:22</td>
<td>9.64%</td>
<td>56:14:47</td>
<td>1:31:16</td>
<td>57:46:03</td>
<td>93%</td>
</tr>
<tr>
<td>12/16/2010</td>
<td>75%</td>
<td>391</td>
<td>85.00%</td>
<td>0:01:59</td>
<td>0:20:03</td>
<td>0:02:27</td>
<td>11.43%</td>
<td>42:27:12</td>
<td>2:42:15</td>
<td>45:09:27</td>
<td>73%</td>
</tr>
<tr>
<td>12/29/2010</td>
<td>79%</td>
<td>583</td>
<td>126.74%</td>
<td>0:04:56</td>
<td>0:36:54</td>
<td>0:04:33</td>
<td>21.83%</td>
<td>36:45:38</td>
<td>13:00:24</td>
<td>49:46:02</td>
<td>80%</td>
</tr>
</tbody>
</table>

*Average Number Calls Per Day: 460
**Average Staff Hours Available Per Day: 62:16:57
Abandonment Rate Based on Staffing
At or Below Average Call Volume

Abandonment Rate

CSR Equivalent

Number of Calls

- % Abandon
- CSR
Appendix D

Abandonment Rate Based on Staffing
Above Average Call Volume

Abandonment Rate

<table>
<thead>
<tr>
<th>%Abandon</th>
<th>CSR Equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>20.0</td>
</tr>
<tr>
<td></td>
<td>18.0</td>
</tr>
<tr>
<td></td>
<td>16.0</td>
</tr>
<tr>
<td></td>
<td>14.0</td>
</tr>
<tr>
<td></td>
<td>12.0</td>
</tr>
<tr>
<td></td>
<td>10.0</td>
</tr>
<tr>
<td></td>
<td>8.0</td>
</tr>
<tr>
<td></td>
<td>6.0</td>
</tr>
<tr>
<td></td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>0.0</td>
</tr>
</tbody>
</table>

Number of Calls